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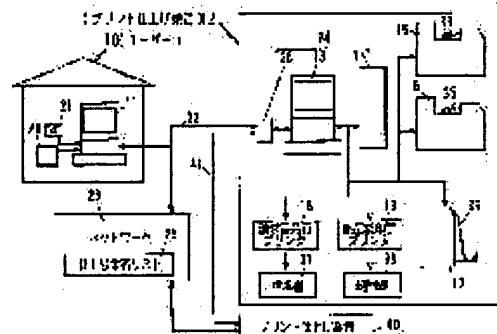
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(54) METHOD AND SYSTEM FOR ORDERING AND DELIVERING DIGITAL PRINT

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain a high-quality print without going to a DP (simultaneous printing) store.

SOLUTION: Digital image data is inputted from a scanner 20, for instance. The image data is image-processed on a personal computer 11. Printing order data concerning the image data image-processed is inputted. By connecting to the data base of a print-finisher 12 by using the computer 11, the image data and the printing order data are transferred to a work station for acceptance 13. The finisher 12 selects printers 15 to 17 based on the printing order data and performs printing by the ordered number of prints according to ordered size. After printing, a delivering method is selected based on the printing order data, and the print is delivered to a user 10 by the selected delivering method. The printing and the delivering are automatized based on the printing order data, and the printing is efficiently performed.



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CLAIMS

[Claim(s)]

[Claim 1] It is the order delivery-of-goods method of the digital print characterized by for a purchaser transmitting digital image data and the print order data corresponding to it to the receptionist processing means of a successful bidder, and for a successful bidder creating a digital print based on the digital image data memorized by storage by the aforementioned receptionist processing means, and the print order data corresponding to it, and delivering the created digital print to a purchaser.

[Claim 2] The aforementioned digital image data are the order delivery-of-goods method of the digital print according to claim 1 characterized by being inputted from a digital camera, a scanner, CG equipment, and a video capture.

[Claim 3] The aforementioned print order data are the order delivery-of-goods method of a digital print according to claim 1 or 2 of carrying out having the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and purchaser discernment data for discriminating a purchaser as the feature.

[Claim 4] The aforementioned print order data have the purchaser identification number data for discriminating a purchaser, and print directions code data. to the aforementioned storage The print directions data which direct print size and print number of sheets for every purchaser identification number data, The print directions code data based on the combination of the time directions data wishing time for delivery which direct the time of choice of print time for delivery, and the delivery-of-goods method directions data which direct the delivery-of-goods method of a print are memorized beforehand. The order delivery-of-goods method of the digital print according to claim 1 or 2 characterized by specifying print order data based on this print directions code data.

[Claim 5] It is the order delivery-of-goods system of the digital print which it has the following, and the aforementioned input means, an information processor, and a data transfer means are prepared in a purchaser side, and is characterized by preparing the aforementioned receptionist processing means, storage, and a digital printer in a successful-bidder side. Digital image entry-of-data means The information processor which inputs print order data while displaying and carrying out the image processing of the inputted digital image data The means which carries out data transfer of the digital image data and print order data by which the image processing was carried out The digital printer which creates a print based on the digital image data and print order data which were memorized by the receptionist processing means which receives the digital image data and print order data by which data transfer was carried out, and carries out receptionist processing, the storage which memorizes the digital image data and print order data which were received, and this storage

[Claim 6] The aforementioned digital image data are a digital camera, a scanner, CG equipment, and the order delivery-of-goods system of the digital print according to claim 5 characterized by being inputted from a video capture.

[Claim 7] The aforementioned print order data are the order delivery-of-goods system of the digital print according to claim 5 or 6 carry out having the print directions data which direct print size and print

number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and purchaser discernment data for discriminating a purchaser as the feature.

[Claim 8] The aforementioned print order data have the purchaser identification number data for discriminating a purchaser, and print directions code data. to the aforementioned storage The print directions data which direct print size and print number of sheets for every purchaser identification number data, The print directions code data based on the combination of the time directions data wishing time for delivery which direct the time of choice of print time for delivery, and the delivery-of-goods method directions data which direct the delivery-of-goods method of a print are memorized beforehand. The order delivery-of-goods system of the digital print according to claim 5 or 6 characterized by specifying print order data based on this print directions code data.

[Claim 9] The aforementioned information processor sends the size of image data, the print directions data of print order data, and the temporary order data that consist of time wishing time for delivery to the aforementioned receptionist processing means. the aforementioned receptionist processing means Based on the aforementioned temporary order data, print time for delivery and a printing charge are computed. When there is data transfer of the print book order data which carry out data transfer of these data to a purchaser, and consist of print order data and digital image data from a purchaser The order delivery-of-goods system of the digital print according to claim 7 or 8 characterized by memorizing print book order data to storage, and sending print directions to a digital printer.

[Claim 10] The order delivery-of-goods system of the digital print according to claim 9 which carries out data transfer also of the receipt number, and is characterized by performing print book order processing and print processing based on this receipt number on the occasion of the data transfer to the purchaser of the print time for delivery and printing charge based on the aforementioned temporary order data.

[Claim 11] The aforementioned print order data are the claim 5 characterized by having the charge payment method directions data and choosing cash payment, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, and cybermoney payment based on this charge payment method directions data, or the order delivery-of-goods system of a digital print given in any 10one.

[Claim 12] They are the claim 5 which the aforementioned print order data have storage duration directions data which direct a digital image data storage period, and is characterized by the thing for which image data was directed for the aforementioned receptionist processing means based on storage duration directions data, and which carry out storage duration preservation, or the order delivery-of-goods system of a digital print given in any 11one.

[Claim 13] The image data memorized by the aforementioned storage is the order delivery-of-goods system of the digital print according to claim 12 characterized by carrying out data transfer to the aforementioned information processor according to directions of a purchaser based on purchaser discernment data.

[Claim 14] They are the claim 5 which the aforementioned print order data have record-medium write-in directions data, and is characterized by writing a receptionist processing means in the record medium which had image data specified based on this record-medium write-in directions data, or the order delivery-of-goods system of a digital print given in any 13one.

[Claim 15] The aforementioned information processor is the claim 5 characterized by having memorized the successful-bidder list as a library, or the order delivery-of-goods system of a digital print given in any 14one.

[Claim 16] The order delivery-of-goods system of the digital print according to claim 15 characterized by downloading the aforementioned successful-bidder list via a network.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[The technical field to which invention belongs] this invention relates to the order delivery-of-goods method and system of a digital print.

[0002]

[Description of the Prior Art] In the present photoprint system, in order to develop and print the film taken a photograph, it carried into DP (simultaneous print) receptionist store etc., DP processing was requested, and the print is received after the time of the date of delivery specified at the time of a receptionist.

[0003]

[Problem(s) to be Solved by the Invention] Therefore, it needed to go to DP receptionist store etc. over 2 times for the request of processing and the receipt, and was troublesome. Moreover, the convenience store of business etc. spreads for 24 hours, and the development of a photograph and 24-hour registration of a print are being attained in such a store recently. However, even if 24 hours of a receptionist are possible, since business is done by the usual business hours, this is finished and time for delivery is not shortened in a processing laboratory.

[0004] Moreover, recently, carrying out an image processing on a personal computer by spread and advanced features of a personal computer (henceforth a personal computer), a digital camera, a scanner, etc., and carrying out a digital print by a personal youth's ink jet printer, a thermal printer, etc. is performed. However, by these personal youths' printer, when it is difficult to expect a quality print and the purchase of a printer etc. is taken into consideration, there is a problem that a printing cost becomes high.

[0005] this invention is for solving the above-mentioned technical problem, and order of a print, and a receipt and creation are made easy, and moreover the processing time from a receptionist to workmanship can be shortened, and it aims at offering the order delivery-of-goods method and system of a digital print by which the still more nearly quality print was obtained by the low cost.

[0006]

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the order delivery-of-goods method of a digital print according to claim 1 A purchaser transmits digital image data and the print order data corresponding to it to the receptionist processing means of a successful bidder. a successful bidder A digital print is created based on the digital image data memorized by storage by the aforementioned receptionist processing means, and the print order data corresponding to it, and the created digital print is delivered to a purchaser.

[0007] The order delivery-of-goods system of a digital print according to claim 5 While displaying and carrying out the image processing of the digital image data inputted as the digital image entry-of-data means The information processor which inputs print order data, and the means which carries out data transfer of the digital image data and print order data by which the image processing was carried out, The receptionist processing means which receives the digital image data and print order data by which

data transfer was carried out, and carries out receptionist processing. The storage which memorizes the digital image data and print order data which were received, It has the digital printer which creates a print based on the digital image data and print order data which were memorized by this storage. The aforementioned input means, an information processor, and a data transfer means are prepared in a purchaser side, and the aforementioned receptionist processing means, storage, and a digital printer are prepared in a successful-bidder side.

[0008] As for the aforementioned digital image data, it is desirable to be inputted from a digital camera, a scanner, CG equipment (CG), and a video capture. Moreover, it is [data / print order / aforementioned] desirable in having the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and purchaser discernment data for discriminating a purchaser. That with which purchaser discernment data combined either of the items, such as a name for specifying an individual before purchaser registration, the address, and the telephone number, or these is used. Purchaser identification number data are used after purchaser registration. Print order data have the purchaser identification number data for discriminating a purchaser, and print directions code data. moreover, to the aforementioned storage The print directions data which direct print size and print number of sheets for every purchaser identification number data, The print directions code data based on the combination of the time directions data wishing time for delivery which direct the time of choice of print time for delivery, and the delivery-of-goods method directions data which direct the delivery-of-goods method of a print are memorized beforehand. It is desirable to specify print order data based on print directions code data.

[0009] The aforementioned information processor sends the size of image data, the print directions data of print order data, and the temporary order data that consist of time wishing time for delivery to the aforementioned receptionist processing means. the aforementioned receptionist processing means Based on the aforementioned temporary order data, print time for delivery and a printing charge are computed. It is desirable to carry out data transfer of these data to a purchaser, to memorize print book order data to storage, when there is data transfer of the print book order data which consist of print order data and digital image data from a purchaser, and to send print directions to a digital printer. In this case, it is desirable that carry out data transfer also of the receipt number, and it performs print book order processing and print processing based on this receipt number on the occasion of the data transfer to the purchaser of the print time for delivery and printing charge based on temporary order data.

[0010] As for the aforementioned print order data, it is desirable to have the charge payment method directions data and to choose cash payment, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, and cybermoney payment based on this charge payment method directions data.

[0011] The aforementioned print order data have storage duration directions data which direct a digital image data storage period, and, as for the aforementioned receptionist processing means, it is desirable to save in the storage duration to which image data was directed based on storage duration directions data.

[0012] As for the image data memorized by the aforementioned storage, it is desirable that data transfer is carried out to the aforementioned information processor according to directions of a purchaser based on purchaser discernment data.

[0013] The aforementioned print order data have record-medium write-in directions data, and, as for a receptionist processing means, it is desirable to write in the record medium which had image data specified based on this record-medium write-in directions data.

[0014] As for the aforementioned information processor, it is desirable to have memorized the successful-bidder list as a library. Furthermore, it is desirable to download a successful-bidder list via a network. As the aforementioned information processor, the personal computer for the individuals who have an image-processing function is desirable. In addition, an image-processing function may be given to a digital camera etc. and you may use as the aforementioned information processor.

[0015]

[Function] Digital image data are inputted into an information processor, for example, a personal computer, from a digital camera, a scanner, CG, a video capture, etc. A purchaser operates a personal computer, displays the inputted image data on a display, and it performs an image processing, looking at this. Furthermore, the print order data for printing this image data are inputted. Print order data have the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and purchaser discernment data for discriminating a purchaser, and these are inputted one by one. If a successful bidder is specified and data transfer is directed after this input, it will be transmitted to the contractor specified by this digital image data that carried out the image processing, and print order data. The receptionist processing means of a successful bidder memorizes the digital image data and print order data by which data transfer was carried out from the purchaser.

[0016] Instead of only memorizing the image data and print order data by which data transfer was carried out, you may make it send the temporary order data which consist of size of order data required in order to compute time for delivery and a charge among the aforementioned print order data, and image data to a successful bidder from a purchaser. In this case, a receptionist processing means computes a printing charge and print time for delivery based on this temporary order data, and carries out data transfer of these data to a purchaser. A purchaser transmits print book order data to a receptionist processing means, when opting for and placing an order for whether an order is placed based on a charge and time for delivery. A receptionist processing means memorizes digital image data and print order data to storage based on this order data transfer of this, and sends print directions to a digital printer. In this case, it is good to determine a receipt number and to manage these order data and image data based on this receipt number.

[0017] A digital printer creates a print based on digital image data and print order data. This print is sent to a purchaser by mailing and delivery based on the delivery-of-goods method directions data of print order data, and also it is directly passed to a purchaser at the shop front of a successful bidder.

Moreover, charge liquidation processing is performed based on the charge payment directions data of print order data. For example, payment by bank automatic accounts transfer, bank transfer, the credit card, and the prepaid card etc. is chosen, and also, in direct delivery processing, cash-disbursement potato selection is carried out.

[0018] An input of the print order data which direct a digital image data storage saves digital image data and print order data during the predetermined period registered beforehand at storage. The inside of this data retention period can rework by the ability of a purchaser downloading image data to a personal computer by directing the data transfer of predetermined image data based on purchaser discernment data.

[0019] If the print order data which direct the writing to a record medium are inputted, it will be written in the record medium with which image data was specified by the receptionist processing means.

[0020] The successful-bidder list is memorized as a library by the personal computer, and a purchaser can choose a successful bidder as it according to time for delivery, a charge, print size, etc. This successful-bidder list is downloaded via a network, for example, the Internet, and the newest list comes to go into a hand simply.

[0021]

[Embodiments of the Invention] Drawing 1 is the schematic diagram showing the order delivery-of-goods system of the digital print of this invention. The personal computer 11 is formed in the user 10 side as a purchaser. Moreover, the workstation 13 for a receptionist, the mass storage 14, printers 15, 16, and 17 and the bill issue printer 18, and the delivery-of-goods bag printing printer 19 are formed in the printed-finish contractor 12 side as a successful bidder.

[0022] The personal computer 11 by the side of a user 10 consists of the main part of a personal computer, the keyboard, a display, a hard disk drive unit, a modem, etc. as everyone knows, and the scanner 20 and digital still camera 21 grade other than these are connected as a picture input means. The

dial-up line 22 of a cable or radio is connected to the aforementioned modem. A personal computer 11 is connected to the database 24 of the networks 23, such as the Internet, and the printed-finish contractor 12 through this dial-up line 22.

[0023] A flat bed type thing is used and, thereby, as for a scanner 20, image data is read in reflection copies, such as a print photograph and printed matter. Moreover, a film scanner may be used as a scanner and image data is read in a photographic film in this case. Moreover, the video capture board is built in the main part of a personal computer, and the incorporation of a video tape recorder, a video camera, television, etc. to image data has become possible. Furthermore, image data may be obtained from the networks 23, such as the Internet.

[0024] An image processing and order software are built into the personal computer 11. This image processing and order software are downloaded from the printed-finish contractor's 12 database 24 so that it may explain later. Moreover, the printed-finish contractor 12 is chosen from a vendors list, and downloads this vendors list 25 from a network 23. An image processing and order software are constituted combining a well-known image-processing program and a well-known order processing program, and from an image processing to an order can perform them now. In addition, only an order processing program is good, in this case, the commercial image-processing software other than the program which performs an image processing and order processing in this way is used, and an image processing is performed.

[0025] An image-processing program performs the incorporation of image data, gamma correction processing, color-correction processing, trimming processing, alphabetic-data insertion composition processing, expansion/reduction processing, data compression processing, etc. And the image data by which data compression processing was carried out with data compression processing format data is memorized by the memory of the main part of a personal computer etc. as image data for a print.

[0026] An order processing program performs print order entry-of-data processing and data transfer of the image data for a print, and print order data.

[0027] In print order entry-of-data processing, after specifying the image data for a print, it is made to correspond to this image data, and print directions data, the time directions data wishing time for delivery, the delivery-of-goods method directions data, the charge payment method directions data, and user ID data are inputted. In addition, once each [these] data is inputted, it will be memorized, the print order data when next placing an order last time will be displayed on a display, and the input of common data for the second time will be omitted.

[0028] Print directions data consist of data which direct print size, print number of sheets, a print format, and a print method. A0 size [print size directs sizes, such as E size in a silver salt photograph printer, L size, and cabinet size size, and also] in an ink jet printer, a thermal printer, etc., and ... sizes, such as A4 size and A6 size, are directed. Print number of sheets directs the number of sheets in each print size.

[0029] Print formats are a special size print like a panorama print, an index print, a multi-print, a seal print, a character composition print, and a thing that directs a monochrome print etc. further. The seal print is stuck on the releasing paper, and it removes, and is used, sticking on other things, and many are used together with a multi-print. A print method directs a silver salt photograph printer, an ink jet printer, a thermal printer, other printers, etc.

[0030] The time directions data wishing time for delivery direct the time wishing time for delivery. In a printed-finish contractor, two or more kinds of time-for-delivery time is set up beforehand, and the time wishing time for delivery is chosen from these. For example, the delivery of goods of less than 24 hours, the less than two-day delivery of goods after a receptionist, etc. are chosen after the delivery of goods of less than 12 hours, and a receptionist after a receptionist. In addition, it is good also as a method which changes into such a selection method and specifies the time-for-delivery time of choice. The delivery-of-goods method directions data direct the delivery-of-goods method, and mailing, delivery, a receipt, etc. are chosen.

[0031] When the charge payment method directions data direct how to pay a charge and you wish the delivery of goods of mailing and delivery, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, etc. are chosen. Moreover, when you wish the delivery of goods of a

receipt, the cash payment other than the above-mentioned payment gestalt is chosen.

[0032] User ID data discriminate a user and consist of a user's name, the address, a zip code, the telephone number, an identification number, etc. In addition, placing an order at once or by registering before an order, the print order data of these series are registered into an order number like order 1 and order 2, a user ID number and a password may only be inputted, in the case of a next order, it may connect with a printed-finish contractor's database, and image data and an order number may be inputted.

[0033] Although it has the same composition as the personal computer 11 by the side of a user 10 fundamentally, since the workstation 13 for a receptionist by the side of the printed-finish contractor 12 also has much amount of data to treat, it is the system configuration which consists of high efficiency and a high-speed computer. Well-known database software is included in this workstation 13 for a receptionist, and the database 24 is built by the workstation 13, storage 14, and the modem 26. Database software corresponds to the image processing and the order software of a personal computer 11. A user's 10 personal computer 11 and the printed-finish contractor's 12 workstation 13 are connected by this order software with the dial-up line 22 and modem 26 of a cable or radio, and receptionist processing is performed.

[0034] The sensitive material and record material from which paper size differs are set to the aforementioned digital printers 15, 16, and 17, and these printers 15-17 print different size. Printers 15 and 16 consist of silver salt method color digital printers, carry out scanning exposure of the silver salt method color sensitive material (color paper) based on digital data, and carry out printing exposure of the picture. A positive positive type thing is used and, as for a color paper, printing exposure of the color paper is carried out by the positive image.

[0035] The silver salt method color digital printer 15 carries out printing exposure of each picture by having the printing exposure section 30 of the scanning exposure method by the laser beam, modulating a light beam based on image data, making it synchronize with delivery of a color paper 31, and carrying out scanning exposure of each photosensitive layer of the yellow of a color paper 31, a Magenta, and cyanogen, as shown in drawing 2. After the development of the color paper [finishing / this printing exposure] 31 is carried out by the paper processor 32, based on a cut mark, it is separated for every coma, and the print 33 of L size is created. Moreover, the back printing machine 34 is formed and this back printing machine 34 records a receipt number, user ID numbers, and these bar codes on the rear face of a color paper 31 made to correspond to each picture. The silver salt method color digital printer 16 of another side is constituted similarly. The thing of cabinet size size is set to this printer 16, and the print 35 of cabinet size size is created.

[0036] You may use for the printing exposure section 30 the field exposure method or line exposure method which used CRT, the liquid crystal display panel, etc. other than the scanning exposure method by the laser beam. Moreover, instead of modulating a light beam, micro mirror equipment may be used and scanning exposure may be carried out. Size arranges a very small mirror (micro mirror) to a line or a matrix, controls the degree of tilt angle of each micro mirror, and micro mirror equipment deflects an incident light.

[0037] As a color paper, when using a negative positive type thing, positive negative conversion of the image data is carried out. This positive negative conversion is performed in the image-processing section of digital printers 15-17, and also it may be performed in the image-processing section of a workstation 13. In addition, the image-processing section of digital printers 15-17 performs a gamma correction and matrix amendment, and it is made for the concentration and color balance of a print which were obtained to become the optimal.

[0038] Moreover, the printer 17 consists of well-known ink-jet method color digital printers. This printer 17 is chosen when the print method directions data of user order data are an ink-jet method, and it creates the print 36 of size with A0 - A4 big size etc. For this reason, the recording paper of various sizes is set to the printer 17, and the recording paper which corresponds according to size specification is chosen. The back printing machine is formed also in this printer 17, and a receipt number, user ID numbers, and these bar codes are recorded on the rear face of the recording paper.

[0039] As shown in drawing 1, the bill issue printer 18 prints a bill 37 based on the data of a workstation 13. Moreover, the delivery-of-goods bag printing printer 19 prints the address, a name, a zip code, etc. into the delivery-of-goods bag 38.

[0040] As shown in drawing 1, the printed-finish contractor's 12 database 24 is connected through database, network 23, or dedicated line 41 of the processing laboratory of a sequence, or the finishing contractor 40. And in the order of the print processing beyond a throughput, the case of an order of the print size which cannot be processed, or a print format, in failure of a printer 15-17, etc., data are transmitted to other sequence processing laboratories and finishing contractors 40, and delivery-of-goods processing is performed by these finishing contractor 40 print processing and if needed.

[0041] Next, an operation of this operation gestalt is explained with reference to drawing 3. A user 10 receives the printed-finish vendors list 25 through the networks 23, such as the Internet. Acquisition of this list 25 is performed by the data communication software attached to the personal computer 11 etc. Next, from this list 25, a user 10 chooses the optimal printed-finish contractor 12 in consideration of a nearby store, the kind of print format, a charge, the delivery-of-goods method, etc., and connects with this printed-finish contractor's 12 database 24.

[0042] The finishing contractor's 12 workstation 13 sends out an image processing and order software to a user 10 side by the demand of download of the personal computer 11 by the side of the connected user 10. A user 10 thaws the image processing and the order software which were downloaded, and installs this in a personal computer 11. After ending this installation normally, it becomes a user's registration menu and user's registration processing can be performed easily.

[0043] In this user's registration processing, the workstation 13 for a receptionist publishes a user ID number and a password to a user 10, and receives a print order henceforth by collating with this user ID number and password.

[0044] Next, a user 10 incorporates the image data for a print, and performs an image processing with an image processing and order software. Image data is inputted into a personal computer 11 from a scanner 20, a digital still camera 21, the digital camcorder that is not illustrated, and also pictures, such as television and a video tape recorder, are inputted through a video capture board. Furthermore, what it is the image data from the networks 23, such as the Internet, and the print is permitted is incorporated as image data for a print.

[0045] The image processing of the incorporated image data is carried out with an image processing and order software. If there are a gamma correction, matrix amendment, character illustration composition, expansion/reduction, trimming, picture composition, etc., for example and these image processings are decided as an image processing, JPEG (Joint Photographic Experts Group) compression of the image data [finishing / this image processing] will be carried out, for example. The compressed image data is written in the predetermined area of RAM of a personal computer 10. A data compression method may use the compression method of other common knowledge, without being limited to JPEG.

[0046] Next, print order data are inputted. A print order entry of data is performed by choosing the directions data for which it asks on a data input screen using a mouse, a keyboard, etc. After all print order entries of data are completed, it becomes data transfer mode, and connects with the printed-finish contractor's 12 workstation 13, and print temporary order data are first transmitted by data communication.

[0047] Print temporary order data consist of sizes (amount of data) of the print directions data of the print order data, the time directions data wishing time for delivery, and the image data for a print.

[0048] By workstation 13, since a present order total and present time for delivery are managed, according to picture size, print number of sheets, etc. of temporary order data, data transfer of the time for delivery and charge to a temporary order is carried out to a user side with a receipt number. That is, a workstation 13 calculates whether it does at the time for delivery of choice according to other users' number of orders, or the throughput of a print based on the print temporary order data from a user 10, and specifies print workmanship time. And time for delivery is computed by adding the delivery-of-goods processing time to this print workmanship time.

[0049] When the computed time for delivery exceeds the time for delivery of choice, a workstation 13

sends a processing impossible message to the personal computer 11 by the side of a user 10. In this case, a user 10 changes the time-for-delivery time of choice, and a temporary order is performed again, and also the stop of an order is chosen.

[0050] When the computed time for delivery is within the time for delivery of choice, a workstation 13 requires the data transfer of print book order data of a personal computer 11 while sending a receipt number and the message which can be processed to the personal computer 11 by the side of a user 10.

[0051] If order directions are chosen after a user 10 checks this time for delivery and charge, a personal computer 11 will send these order data to a workstation 13. These order data consist of all and the image data for a print of print order data. A workstation 13 carries out data control of this order data of this based on a receipt number, and memorizes these order data to storage 14.

[0052] A workstation 13 prints each order on the order of time for delivery based on the received content. At this time, the printers 15-17 used based on print directions data are chosen. And a part for directions number of sheets is printed in the directed print size. For example, when the usual L size print is specified, L size print 33 is created using a printer 15. Moreover, when a cabinet size size print is specified, the cabinet size size print 35 is created using a printer 16. Moreover, when the print of A3 size is specified, the print 36 of A3 size is created using an ink jet printer 17. In addition, when the manual amendment processing by the operator is chosen, a workstation 13 does not perform an autoprint but chooses the manual print processing in business hours. In this case, an operator performs an image processing so that concentration and color balance may become the optimal, and he creates prints 33, 35, and 36 using the various printers 15-17. Moreover, when the print size in an autoprint and things other than a print format are chosen, manual print processing is similarly performed by the operator in business hours.

[0053] Moreover, the back printing machine of each printers 15-17 prints a receipt number, user ID numbers, and these bar codes at the rear face of prints 31-33. These receipt numbers, a user ID number, and a bar code are used for collating with a bill and a delivery-of-goods bag by next delivery-of-goods processing.

[0054] In parallel to a print, print processing of a bill and a delivery-of-goods bag is performed before and after a print. In bill issue processing, by the bill issue printer 18, a workstation 13 prints the bar code of the detail of a charge rate, a receipt number, a user ID number, and these numbers by predetermined format, and publishes a bill 37. Similarly, a workstation 13 prints the bar code of a user's zip code, the address, a name, the telephone number, a delivery-of-goods classification code, etc. a receipt number, a user ID number, and these numbers on the delivery-of-goods bag 38 by the delivery-of-goods bag printing printer 19. These zip codes, address and name, etc. are specified based on the user ID number of print order data. In addition, when adopting a delivery-of-goods bag with a transparent aperture, you may omit the addressing name writing print to a delivery-of-goods bag by entering address and name etc. in a bill. According to print size, various preparation of the delivery-of-goods bag 38 is carried out, for example, in the large size print of A0 - A3 grade, a barrel is used. Moreover, you may print on the label other than direct printing to the delivery-of-goods bag 38, and this label is stuck on the delivery-of-goods bag 38 in this case.

[0055] Since the same receipt number and the same bar code are recorded on the prints 33, 35, and 36, the bill 37, and the delivery-of-goods bag 38 which were finished, collating is performed on the basis of these, and after being packed, processing of mailing, delivery, delivery, etc. is chosen in delivery-of-goods classification code. In addition, after this packing being performed by the help based on a receipt number, and also reading a receipt number bar code automatically by the bar code reader and packing automatically, according to each delivery-of-goods classification, it is good as for a method of *****.

[0056] A printing charge is liquidated by the method directed by the charge payment method directions data. For example, a workstation 13 can be printed in the charge limit of this prepaid card in a user purchasing a prepaid card by the printed-finish contractor etc. in the case of the prepaid card payment method, and inputting this card identification number into it as print payment method directions data.

[0057] In addition, you may add the storage duration directions data which carry out the predetermined

period storage of the image data to print order data. When this storage duration directions data is inputted, a workstation 13 saves the specified period and image data at storage 14. Within this storage duration, a user can read image data and can add correction. Moreover, when saving predetermined period image data by this storage duration directions data, this charge will be added to a charge rate. [0058] Record-medium write-in directions data may be added as print order data, and it is written in the record medium with which the image data specified in this case was chosen, for example, DVD, MO, CD, FD, etc. These image data is delivered to a user 10, when a record medium fills, or when there are directions of a user 10.

[0059] The aforementioned personal computer 11 has memorized the printed-finish vendors list as a library, and can choose the optimal printed-finish contractor from a list of the printer to hold, or a charge and a time-for-delivery list. By downloading suitably by the network 23 course of the Internet etc., this printed-finish vendors list 25 is always updated by the newest thing.

[0060] When the printed-finish contractor 12 serves as the processing laboratory of a photographic film, in case I have DP processing of the negative film photoed with the silver salt photograph camera carried out in a processing laboratory, a picture may be incorporated by the film scanner and you may record on storage 14 by making this into image data. In this case, a user 10 connects with the printed-finish contractor's 12 workstation 13 based on a user ID number, downloads image data, after he does the image processing of this downloaded image data, he inputs print order data, and he orders a print.

[0061] With the above-mentioned operation gestalt, although the silver salt formula color digital printers 15 and 16 and the ink-jet color printer 17 were used, you may use the color printer of a heat developing imprint method, a color ink jet printer, a color thermal printer, and a color laser printer. Moreover, a monochrome printer is used when performing a monochrome print with a natural thing.

[0062] Picture amendment processing directions data may be added as print order data, in this case, it is finished by the operator, and a simulation picture is observed, and picture amendment processing is performed so that concentration and color balance may become the optimal. In this case, an amendment processing charge is added to a charge rate.

[0063] As a print format of print order data, you may add postcard directions data. In this case, after it made the user choose the content of a synthetic document, and a synthetic pattern from some kinds of patterns and also the user has done picture composition of the document, you may carry out data transfer to a printed-finish contractor. Furthermore, you may mail the postcard printed by the printed-finish contractor side to the destination address by carrying out data transfer also of the destination address list data.

[0064]

[Effect of the Invention] It becomes unnecessary to go to the shell which transmitted digital image data and the print order data corresponding to it to the successful bidder, DP receptionist store, etc. according to invention according to claim 1 or 5. And a favorite image processing can be performed by the purchaser side. Moreover, since a successful bidder memorizes digital image data and print order data to storage, creates a print based on this memorized digital image data and print order data and delivers a print to a purchaser based on print order data, it can automate print processing and delivery of goods. And since registration time is not limited to business hours like a store receptionist and a receptionist becomes possible for 24 hours, it can print efficiently conjointly with automation of print processing, and the time for delivery of a print can be shortened.

[0065] According to invention according to claim 2 or 6, since digital image data should be inputted from a digital camera, a scanner, CG equipment, and the video capture, a purchaser can order a print easily using information processors, such as a personal computer of a house.

[0066] According to invention according to claim 3 or 7, since it carried out as the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and the purchaser discernment data for discriminating a purchaser, print order data can carry out a print order certainly.

[0067] According to invention according to claim 4 or 8, since print order data were constituted from

purchaser identification number data for discriminating a purchaser, and print directions code data and print order data were specified based on print directions code data, it becomes unnecessary to input various kinds of print order data individually in the case of an order, and a print order can be carried out easily.

[0068] According to invention according to claim 9, an information processor for a receptionist processing means The size of image data, The print directions data of print order data and the temporary order data which consist of time wishing time for delivery are sent. a receptionist processing means When there is data transfer of the print book order data which compute print time for delivery and a printing charge based on temporary order data, carry out data transfer of these data to a purchaser, and consist of print order data and digital image data from a purchaser Print book order data are memorized to storage, and since image data is transmitted only when the shell and print processing in which print directions were sent to the digital printer can be ensured, it is lost that a transfer of image data with a large data capacity is performed vainly. Moreover, print time for delivery and a charge can certainly be known, and can order a print formally based on this. Moreover, data control can be easily performed by managing this order processing and print processing based on a receipt number.

[0069] According to invention according to claim 11, since the aforementioned print order data have the charge payment method directions data and choose cash payment, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, and cybermoney payment based on this charge payment method directions data, they can process from print processing to charge payment automatically.

[0070] According to invention according to claim 12, print order data have storage duration directions data which direct a digital image data storage period, since storage duration preservation is carried out, the thing of storage for which image data was directed based on storage duration directions data and which save image data with a large data capacity futilely for a long period of time is lost, and it can use the storage capacity of a purchaser and a successful bidder effectively.

[0071] According to invention according to claim 13, the image data recorded on storage can make the further correction etc. easily by carrying out data transfer to the aforementioned information processor according to directions of a purchaser based on purchaser discernment data.

[0072] According to invention according to claim 14, print order data have record-medium write-in directions data, and even if a receptionist processing means is a purchaser which does not have a mass record-medium write-in means by writing in the record medium which had image data specified based on this record-medium write-in directions data, it can certainly save image data at a record medium.

[0073] According to invention according to claim 15, an information processor can choose easily a successful bidder with the print field made elated, advantageous time for delivery, charge, etc. by memorizing a successful-bidder list as a library. And the newest list can always be got simply and quickly by downloading a successful-bidder list via a network.

[Translation done.]

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TECHNICAL FIELD

[The technical field to which invention belongs] this invention relates to the order delivery-of-goods method and system of a digital print.

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PRIOR ART

[Description of the Prior Art] In the present photoprint system, in order to develop and print the film taken a photograph, it carried into DP (simultaneous print) receptionist store etc., DP processing was requested, and the print is received after the time of the date of delivery specified at the time of a receptionist.

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EFFECT OF THE INVENTION

[Effect of the Invention] It becomes unnecessary to go to the shell which transmitted digital image data and the print order data corresponding to it to the successful bidder, DP receptionist store, etc. according to invention according to claim 1 or 5. And a favorite image processing can be performed by the purchaser side. Moreover, since a successful bidder memorizes digital image data and print order data to storage, creates a print based on this memorized digital image data and print order data and delivers a print to a purchaser based on print order data, it can automate print processing and delivery of goods. And since registration time is not limited to business hours like a store receptionist and a receptionist becomes possible for 24 hours, it can print efficiently conjointly with automation of print processing, and the time for delivery of a print can be shortened.

[0065] According to invention according to claim 2 or 6, since digital image data should be inputted from a digital camera, a scanner, CG equipment, and the video capture, a purchaser can order a print easily using information processors, such as a personal computer of a house.

[0066] According to invention according to claim 3 or 7, since it carried out as the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and the purchaser discernment data for discriminating a purchaser, print order data can carry out a print order certainly.

[0067] According to invention according to claim 4 or 8, since print order data were constituted from purchaser identification number data for discriminating a purchaser, and print directions code data and print order data were specified based on print directions code data, it becomes unnecessary to input various kinds of print order data individually in the case of an order, and a print order can be carried out easily.

[0068] In invention according to claim 9, an information processor for a receptionist processing means The size of image data, The print directions data of print order data and the temporary order data which consist of time wishing time for delivery are sent. a receptionist processing means When there is data transfer of the print book order data which compute print time for delivery and a printing charge based on temporary order data, carry out data transfer of these data to a purchaser, and consist of print order data and digital image data from a purchaser Print book order data are memorized to storage, and image data is transmitted only when the shell and print processing in which print directions were sent to the digital printer can be ensured. Therefore, it is lost that a transfer of image data with a large data capacity is performed vainly. Moreover, print time for delivery and a charge can certainly be known, and can order a print formally based on this. Moreover, data control can be easily performed by managing this order processing and print processing based on a receipt number.

[0069] According to invention according to claim 11, since the aforementioned print order data have the charge payment method directions data and choose cash payment, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, and cybermoney payment based on this charge payment method directions data, they can process from print processing to charge payment automatically.

[0070] According to invention according to claim 12, print order data have storage duration directions data which direct a digital image data storage period, since storage duration preservation is carried out, the thing of storage for which image data was directed based on storage duration directions data and which save image data with a large data capacity futilely for a long period of time is lost, and it can use the storage capacity of a purchaser and a successful bidder effectively.

[0071] According to invention according to claim 13, the image data recorded on storage can make the further correction etc. easily by carrying out data transfer to the aforementioned information processor according to directions of a purchaser based on purchaser discernment data.

[0072] According to invention according to claim 14, print order data have record-medium write-in directions data, and even if a receptionist processing means is a purchaser which does not have a mass record-medium write-in means by writing in the record medium which had image data specified based on this record-medium write-in directions data, it can certainly save image data at a record medium.

[0073] According to invention according to claim 15, an information processor can choose easily a successful bidder with the print field made elated, advantageous time for delivery, charge, etc. by memorizing a successful-bidder list as a library. And the newest list can always be got simply and quickly by downloading a successful-bidder list via a network.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] Therefore, it needed to go to DP receptionist store etc. over 2 times for the request of processing and the receipt, and was troublesome. Moreover, the convenience store of business etc. spreads for 24 hours, and the development of a photograph and 24-hour registration of a print are being attained in such a store recently. However, even if 24 hours of a receptionist are possible, since business is done by the usual business hours, this is finished and time for delivery is not shortened in a processing laboratory.

[0004] Moreover, recently, carrying out an image processing on a personal computer by spread and advanced features of a personal computer (henceforth a personal computer), a digital camera, a scanner, etc., and carrying out a digital print by a personal youth's ink jet printer, a thermal printer, etc. is performed. However, by these personal youths' printer, when it is difficult to expect a quality print and the purchase of a printer etc. is taken into consideration, there is a problem that a printing cost becomes high.

[0005] this invention is for solving the above-mentioned technical problem, and order of a print, and a receipt and creation are made easy, and moreover the processing time from a receptionist to workmanship can be shortened, and it aims at offering the order delivery-of-goods method and system of a digital print by which the still more nearly quality print was obtained by the low cost.

[0006]

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MEANS

[Means for Solving the Problem] In order to attain the above-mentioned purpose, the order delivery-of-goods method of a digital print according to claim 1 A purchaser transmits digital image data and the print order data corresponding to it to the receptionist processing means of a successful bidder. a successful bidder A digital print is created based on the digital image data memorized by storage by the aforementioned receptionist processing means, and the print order data corresponding to it, and the created digital print is delivered to a purchaser.

[0007] The order delivery-of-goods system of a digital print according to claim 5 While displaying and carrying out the image processing of the digital image data inputted as the digital image entry-of-data means The information processor which inputs print order data, and the means which carries out data transfer of the digital image data and print order data by which the image processing was carried out, The receptionist processing means which receives the digital image data and print order data by which data transfer was carried out, and carries out receptionist processing, The storage which memorizes the digital image data and print order data which were received, It has the digital printer which creates a print based on the digital image data and print order data which were memorized by this storage. The aforementioned input means, an information processor, and a data transfer means are prepared in a purchaser side, and the aforementioned receptionist processing means, storage, and a digital printer are prepared in a successful-bidder side.

[0008] As for the aforementioned digital image data, it is desirable to be inputted from a digital camera, a scanner, CG equipment (CG), and a video capture. Moreover, it is [data / print order / aforementioned] desirable in having the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and purchaser discernment data for discriminating a purchaser. That with which purchaser discernment data combined either of the items, such as a name for specifying an individual before purchaser registration, the address, and the telephone number, or these is used. Purchaser identification number data are used after purchaser registration. Print order data have the purchaser identification number data for discriminating a purchaser, and print directions code data. moreover, to the aforementioned storage The print directions data which direct print size and print number of sheets for every purchaser identification number data, The print directions code data based on the combination of the time directions data wishing time for delivery which direct the time of choice of print time for delivery, and the delivery-of-goods method directions data which direct the delivery-of-goods method of a print are memorized beforehand. It is desirable to specify print order data based on print directions code data.

[0009] The aforementioned information processor sends the size of image data, the print directions data of print order data, and the temporary order data that consist of time wishing time for delivery to the aforementioned receptionist processing means. the aforementioned receptionist processing means Based on the aforementioned temporary order data, print time for delivery and a printing charge are computed. It is desirable to carry out data transfer of these data to a purchaser, to memorize print book order data to

storage, when there is data transfer of the print book order data which consist of print order data and digital image data from a purchaser, and to send print directions to a digital printer. In this case, it is desirable that carry out data transfer also of the receipt number, and it performs print book order processing and print processing based on this receipt number on the occasion of the data transfer to the purchaser of the print time for delivery and printing charge based on temporary order data.

[0010] As for the aforementioned print order data, it is desirable to have the charge payment method directions data and to choose cash payment, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, and cybermoney payment based on this charge payment method directions data.

[0011] The aforementioned print order data have storage duration directions data which direct a digital image data storage period, and, as for the aforementioned receptionist processing means, it is desirable to save in the storage duration to which image data was directed based on storage duration directions data.

[0012] As for the image data memorized by the aforementioned storage, it is desirable that data transfer is carried out to the aforementioned information processor according to directions of a purchaser based on purchaser discernment data.

[0013] The aforementioned print order data have record-medium write-in directions data, and, as for a receptionist processing means, it is desirable to write in the record medium which had image data specified based on this record-medium write-in directions data.

[0014] As for the aforementioned information processor, it is desirable to have memorized the successful-bidder list as a library. Furthermore, it is desirable to download a successful-bidder list via a network. As the aforementioned information processor, the personal computer for the individuals who have an image-processing function is desirable. In addition, an image-processing function may be given to a digital camera etc. and you may use as the aforementioned information processor.

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OPERATION

[Function] Digital image data are inputted into an information processor, for example, a personal computer, from a digital camera, a scanner, CG, a video capture, etc. A purchaser operates a personal computer, displays the inputted image data on a display, and it performs an image processing, looking at this. Furthermore, the print order data for printing this image data are inputted. Print order data have the print directions data which direct print size and print number of sheets, the time directions data wishing time for delivery which direct the time of choice of print time for delivery, the delivery-of-goods method directions data which direct the delivery-of-goods method of a print, and purchaser discernment data for discriminating a purchaser, and these are inputted one by one. If a successful bidder is specified and data transfer is directed after this input, it will be transmitted to the contractor specified by this digital image data that carried out the image processing, and print order data. The receptionist processing means of a successful bidder memorizes the digital image data and print order data by which data transfer was carried out from the purchaser.

[0016] Instead of only memorizing the image data and print order data by which data transfer was carried out, you may make it send the temporary order data which consist of size of order data required in order to compute time for delivery and a charge among the aforementioned print order data, and image data to a successful bidder from a purchaser. In this case, a receptionist processing means computes a printing charge and print time for delivery based on this temporary order data, and carries out data transfer of these data to a purchaser. A purchaser transmits print book order data to a receptionist processing means, when opting for and placing an order for whether an order is placed based on a charge and time for delivery. A receptionist processing means memorizes digital image data and print order data to storage based on this order data transfer of this, and sends print directions to a digital printer. In this case, it is good to determine a receipt number and to manage these order data and image data based on this receipt number.

[0017] A digital printer creates a print based on digital image data and print order data. This print is sent to a purchaser by mailing and delivery based on the delivery-of-goods method directions data of print order data, and also it is directly passed to a purchaser at the shop front of a successful bidder. Moreover, charge liquidation processing is performed based on the charge payment directions data of print order data. For example, payment by bank automatic accounts transfer, bank transfer, the credit card, and the prepaid card etc. is chosen, and also, in direct delivery processing, cash-disbursement potato selection is carried out.

[0018] An input of the print order data which direct a digital image data storage saves digital image data and print order data during the predetermined period registered beforehand at storage. The inside of this data retention period can rework by the ability of a purchaser downloading image data to a personal computer by directing the data transfer of predetermined image data based on purchaser discernment data.

[0019] If the print order data which direct the writing to a record medium are inputted, it will be written in the record medium with which image data was specified by the receptionist processing means.

[0020] The successful-bidder list is memorized as a library by the personal computer, and a purchaser

can choose a successful bidder as it according to time for delivery, a charge, print size, etc. This successful-bidder list is downloaded via a network, for example, the Internet, and the newest list comes to go into a hand simply.

[0021]

[Embodiments of the Invention] Drawing 1 is the schematic diagram showing the order delivery-of-goods system of the digital print of this invention. The personal computer 11 is formed in the user 10 side as a purchaser. Moreover, the workstation 13 for a receptionist, the mass storage 14, printers 15, 16, and 17 and the bill issue printer 18, and the delivery-of-goods bag printing printer 19 are formed in the printed-finish contractor 12 side as a successful bidder.

[0022] The personal computer 11 by the side of a user 10 consists of the main part of a personal computer, the keyboard, a display, a hard disk drive unit, a modem, etc. as everyone knows, and the scanner 20 and digital still camera 21 grade other than these are connected as a picture input means. The dial-up line 22 of a cable or radio is connected to the aforementioned modem. A personal computer 11 is connected to the database 24 of the networks 23, such as the Internet, and the printed-finish contractor 12 through this dial-up line 22.

[0023] A flat bed type thing is used and, thereby, as for a scanner 20, image data is read in reflection copies, such as a print photograph and printed matter. Moreover, a film scanner may be used as a scanner and image data is read in a photographic film in this case. Moreover, the video capture board is built in the main part of a personal computer, and the incorporation of a video tape recorder, a video camera, television, etc. to image data has become possible. Furthermore, image data may be obtained from the networks 23, such as the Internet.

[0024] An image processing and order software are built into the personal computer 11. This image processing and order software are downloaded from the printed-finish contractor's 12 database 24 so that it may explain later. Moreover, the printed-finish contractor 12 is chosen from a vendors list, and downloads this vendors list 25 from a network 23. An image processing and order software are constituted combining a well-known image-processing program and a well-known order processing program, and from an image processing to an order can perform them now. In addition, only an order processing program is good, in this case, the commercial image-processing software other than the program which performs an image processing and order processing in this way is used, and an image processing is performed.

[0025] An image-processing program performs the incorporation of image data, gamma correction processing, color-correction processing, trimming processing, alphabetic-data insertion composition processing, expansion/reduction processing, data compression processing, etc. And the image data by which data compression processing was carried out with data compression processing format data is memorized by the memory of the main part of a personal computer etc. as image data for a print.

[0026] An order processing program performs print order entry-of-data processing and data transfer of the image data for a print, and print order data.

[0027] In print order entry-of-data processing, after specifying the image data for a print, it is made to correspond to this image data, and print directions data, the time directions data wishing time for delivery, the delivery-of-goods method directions data, the charge payment method directions data, and user ID data are inputted. In addition, once each [these] data is inputted, it will be memorized, the print order data when next placing an order last time will be displayed on a display, and the input of common data for the second time will be omitted.

[0028] Print directions data consist of data which direct print size, print number of sheets, a print format, and a print method. A0 size [print size directs sizes, such as E size in a silver salt photograph printer, L size, and cabinet size size, and also] in an ink jet printer, a thermal printer, etc., and ... sizes, such as A4 size and A6 size, are directed Print number of sheets directs the number of sheets in each print size.

[0029] Print formats are a special size print like a panorama print, an index print, a multi-print, a seal print, a character composition print, and a thing that directs a monochrome print etc. further. The seal print is stuck on the releasing paper, and it removes, and is used, sticking on other things, and many are used together with a multi-print. A print method directs a silver salt photograph printer, an ink jet

printer, a thermal printer, other printers, etc.

[0030] The time directions data wishing time for delivery direct the time wishing time for delivery. In a printed-finish contractor, two or more kinds of time-for-delivery time is set up beforehand, and the time wishing time for delivery is chosen from these. For example, the delivery of goods of less than 24 hours, the less than two-day delivery of goods after a receptionist, etc. are chosen after the delivery of goods of less than 12 hours, and a receptionist after a receptionist. In addition, it is good also as a method which changes into such a selection method and specifies the time-for-delivery time of choice. The delivery-of-goods method directions data direct the delivery-of-goods method, and mailing, delivery, a receipt, etc. are chosen.

[0031] When the charge payment method directions data direct how to pay a charge and you wish the delivery of goods of mailing and delivery, credit card payment, bank automatic accounts transfer, bank transfer, prepaid card payment, etc. are chosen. Moreover, when you wish the delivery of goods of a receipt, the cash payment other than the above-mentioned payment gestalt is chosen.

[0032] User ID data discriminate a user and consist of a user's name, the address, a zip code, the telephone number, an identification number, etc. In addition, placing an order at once or by registering before an order, the print order data of these series are registered into an order number like order 1 and order 2, a user ID number and a password may only be inputted, in the case of a next order, it may connect with a printed-finish contractor's database, and image data and an order number may be inputted.

[0033] Although it has the same composition as the personal computer 11 by the side of a user 10 fundamentally, since the workstation 13 for a receptionist by the side of the printed-finish contractor 12 also has much amount of data to treat, it is the system configuration which consists of high efficiency and a high-speed computer. Well-known database software is included in this workstation 13 for a receptionist, and the database 24 is built by the workstation 13, storage 14, and the modem 26. Database software corresponds to the image processing and the order software of a personal computer 11. A user's 10 personal computer 11 and the printed-finish contractor's 12 workstation 13 are connected by this order software with the dial-up line 22 and modem 26 of a cable or radio, and receptionist processing is performed.

[0034] The sensitive material and record material from which paper size differs are set to the aforementioned digital printers 15, 16, and 17, and these printers 15-17 print different size. Printers 15 and 16 consist of silver salt method color digital printers, carry out scanning exposure of the silver salt method color sensitive material (color paper) based on digital data, and carry out printing exposure of the picture. A positive positive type thing is used and, as for a color paper, printing exposure of the color paper is carried out by the positive image.

[0035] The silver salt method color digital printer 15 carries out printing exposure of each picture by having the printing exposure section 30 of the scanning exposure method by the laser beam, modulating a light beam based on image data, making it synchronize with delivery of a color paper 31, and carrying out scanning exposure of each photosensitive layer of the yellow of a color paper 31, a Magenta, and cyanogen, as shown in drawing 2. After the development of the color paper [finishing / this printing exposure] 31 is carried out by the paper processor 32, based on a cut mark, it is separated for every coma, and the print 33 of L size is created. Moreover, the back printing machine 34 is formed and this back printing machine 34 records a receipt number, user ID numbers, and these bar codes on the rear face of a color paper 31 made to correspond to each picture. The silver salt method color digital printer 16 of another side is constituted similarly. The thing of cabinet size size is set to this printer 16, and the print 35 of cabinet size size is created.

[0036] You may use for the printing exposure section 30 the field exposure method or line exposure method which used CRT, the liquid crystal display panel, etc. other than the scanning exposure method by the laser beam. Moreover, instead of modulating a light beam, micro mirror equipment may be used and scanning exposure may be carried out. Size arranges a very small mirror (micro mirror) to a line or a matrix, controls the degree of tilt angle of each micro mirror, and micro mirror equipment deflects an incident light.

[0037] As a color paper, when using a negative positive type thing, positive negative conversion of the image data is carried out. This positive negative conversion is performed in the image-processing section of digital printers 15-17, and also it may be performed in the image-processing section of a workstation 13. In addition, the image-processing section of digital printers 15-17 performs a gamma correction and matrix amendment, and it is made for the concentration and color balance of a print which were obtained to become the optimal.

[0038] Moreover, the printer 17 consists of well-known ink-jet method color digital printers. This printer 17 is chosen when the print method directions data of user order data are an ink-jet method, and it creates the print 36 of size with A0 - A4 big size etc. For this reason, the recording paper of various sizes is set to the printer 17, and the recording paper which corresponds according to size specification is chosen. The back printing machine is formed also in this printer 17, and a receipt number, user ID numbers, and these bar codes are recorded on the rear face of the recording paper.

[0039] As shown in drawing 1, the bill issue printer 18 prints a bill 37 based on the data of a workstation 13. Moreover, the delivery-of-goods bag printing printer 19 prints the address, a name, a zip code, etc. into the delivery-of-goods bag 38.

[0040] As shown in drawing 1, the printed-finish contractor's 12 database 24 is connected through database, network 23, or dedicated line 41 of the processing laboratory of a sequence, or the finishing contractor 40. And in the order of the print processing beyond a throughput, the case of an order of the print size which cannot be processed, or a print format, in failure of a printer 15-17, etc., data are transmitted to other sequence processing laboratories and finishing contractors 40, and delivery-of-goods processing is performed by these finishing contractor 40 print processing and if needed.

[0041] Next, an operation of this operation gestalt is explained with reference to drawing 3. A user 10 receives the printed-finish vendors list 25 through the networks 23, such as the Internet. Acquisition of this list 25 is performed by the data communication software attached to the personal computer 11 etc. Next, from this list 25, a user 10 chooses the optimal printed-finish contractor 12 in consideration of a nearby store, the kind of print format, a charge, the delivery-of-goods method, etc., and connects with this printed-finish contractor's 12 database 24.

[0042] The finishing contractor's 12 workstation 13 sends out an image processing and order software to a user 10 side by the demand of download of the personal computer 11 by the side of the connected user 10. A user 10 thaws the image processing and the order software which were downloaded, and installs this in a personal computer 11. After ending this installation normally, it becomes a user's registration menu and user's registration processing can be performed easily.

[0043] In this user's registration processing, the workstation 13 for a receptionist publishes a user ID number and a password to a user 10, and receives a print order henceforth by collating with this user ID number and password.

[0044] Next, a user 10 incorporates the image data for a print, and performs an image processing with an image processing and order software. Image data is inputted into a personal computer 11 from a scanner 20, a digital still camera 21, the digital camcorder that is not illustrated, and also pictures, such as television and a video tape recorder, are inputted through a video capture board. Furthermore, what it is the image data from the networks 23, such as the Internet, and the print is permitted is incorporated as image data for a print.

[0045] The image processing of the incorporated image data is carried out with an image processing and order software. If there are a gamma correction, matrix amendment, character illustration composition, expansion/reduction, trimming, picture composition, etc., for example and these image processings are decided as an image processing, JPEG (Joint Photographic Experts Group) compression of the image data [finishing / this image processing] will be carried out, for example. The compressed image data is written in the predetermined area of RAM of a personal computer 10. A data compression method may use the compression method of other common knowledge, without being limited to JPEG.

[0046] Next, print order data are inputted. A print order entry of data is performed by choosing the directions data for which it asks on a data input screen using a mouse, a keyboard, etc. After all print order entries of data are completed, it becomes data transfer mode, and connects with the printed-finish

contractor's 12 workstation 13, and print temporary order data are first transmitted by data communication.

[0047] Print temporary order data consist of sizes (amount of data) of the print directions data of the print order data, the time directions data wishing time for delivery, and the image data for a print.

[0048] By workstation 13, since a present order total and present time for delivery are managed, according to picture size, print number of sheets, etc. of temporary order data, data transfer of the time for delivery and charge to a temporary order is carried out to a user side with a receipt number. That is, a workstation 13 calculates whether it does at the time for delivery of choice according to other users' number of orders, or the throughput of a print based on the print temporary order data from a user 10, and specifies print workmanship time. And time for delivery is computed by adding the delivery-of-goods processing time to this print workmanship time.

[0049] When the computed time for delivery exceeds the time for delivery of choice, a workstation 13 sends a processing impossible message to the personal computer 11 by the side of a user 10. In this case, a user 10 changes the time-for-delivery time of choice, and a temporary order is performed again, and also the stop of an order is chosen.

[0050] When the computed time for delivery is within the time for delivery of choice, a workstation 13 requires the data transfer of print book order data of a personal computer 11 while sending a receipt number and the message which can be processed to the personal computer 11 by the side of a user 10.

[0051] If order directions are chosen after a user 10 checks this time for delivery and charge, a personal computer 11 will send these order data to a workstation 13. These order data consist of all and the image data for a print of print order data. A workstation 13 carries out data control of this order data of this based on a receipt number, and memorizes these order data to storage 14.

[0052] A workstation 13 prints each order on the order of time for delivery based on the received content. At this time, the printers 15-17 used based on print directions data are chosen. And a part for directions number of sheets is printed in the directed print size. For example, when the usual L size print is specified, L size print 33 is created using a printer 15. Moreover, when a cabinet size size print is specified, the cabinet size size print 35 is created using a printer 16. Moreover, when the print of A3 size is specified, the print 36 of A3 size is created using an ink jet printer 17. In addition, when the manual amendment processing by the operator is chosen, a workstation 13 does not perform an autoprint but chooses the manual print processing in business hours. In this case, an operator performs an image processing so that concentration and color balance may become the optimal, and he creates prints 33, 35, and 36 using the various printers 15-17. Moreover, when the print size in an autoprint and things other than a print format are chosen, manual print processing is similarly performed by the operator in business hours.

[0053] Moreover, the back printing machine of each printers 15-17 prints a receipt number, user ID numbers, and these bar codes at the rear face of prints 31-33. These receipt numbers, a user ID number, and a bar code are used for collating with a bill and a delivery-of-goods bag by next delivery-of-goods processing.

[0054] In parallel to a print, print processing of a bill and a delivery-of-goods bag is performed before and after a print. In bill issue processing, by the bill issue printer 18, a workstation 13 prints the bar code of the detail of a charge rate, a receipt number, a user ID number, and these numbers by predetermined format, and publishes a bill 37. Similarly, a workstation 13 prints the bar code of a user's zip code, the address, a name, the telephone number, a delivery-of-goods classification code, etc. a receipt number, a user ID number, and these numbers on the delivery-of-goods bag 38 by the delivery-of-goods bag printing printer 19. These zip codes, address and name, etc. are specified based on the user ID number of print order data. In addition, when adopting a delivery-of-goods bag with a transparent aperture, you may omit the addressing name writing print to a delivery-of-goods bag by entering address and name etc. in a bill. According to print size, various preparation of the delivery-of-goods bag 38 is carried out, for example, in the large size print of A0 - A3 grade, a barrel is used. Moreover, you may print on the label other than direct printing to the delivery-of-goods bag 38, and this label is stuck on the delivery-of-goods bag 38 in this case.

[0055] Since the same receipt number and the same bar code are recorded on the prints 33, 35, and 36, the bill 37, and the delivery-of-goods bag 38 which were finished, collating is performed on the basis of these, and after being packed, processing of mailing, delivery, delivery, etc. is chosen in delivery-of-goods classification code. In addition, after this packing being performed by the help based on a receipt number, and also reading a receipt number bar code automatically by the bar code reader and packing automatically, according to each delivery-of-goods classification, it is good as for a method of *****.

[0056] A printing charge is liquidated by the method directed by the charge payment method directions data. For example, a workstation 13 can be printed in the charge limit of this prepaid card in a user purchasing a prepaid card by the printed-finish contractor etc. in the case of the prepaid card payment method, and inputting this card identification number into it as print payment method directions data.

[0057] In addition, you may add the storage duration directions data which carry out the predetermined period storage of the image data to print order data. When this storage duration directions data is inputted, a workstation 13 saves the specified period and image data at storage 14. Within this storage duration, a user can read image data and can add correction. Moreover, when saving predetermined period image data by this storage duration directions data, this charge will be added to a charge rate.

[0058] Record-medium write-in directions data may be added as print order data, and it is written in the record medium with which the image data specified in this case was chosen, for example, DVD, MO, CD, FD, etc. These image data is delivered to a user 10, when a record medium fills, or when there are directions of a user 10.

[0059] The aforementioned personal computer 11 has memorized the printed-finish vendors list as a library, and can choose the optimal printed-finish contractor from a list of the printer to hold, or a charge and a time-for-delivery list. By downloading suitably by the network 23 course of the Internet etc., this printed-finish vendors list 25 is always updated by the newest thing.

[0060] When the printed-finish contractor 12 serves as the processing laboratory of a photographic film, in case I have DP processing of the negative film photoed with the silver salt photograph camera carried out in a processing laboratory, a picture may be incorporated by the film scanner and you may record on storage 14 by making this into image data. In this case, a user 10 connects with the printed-finish contractor's 12 workstation 13 based on a user ID number, downloads image data, after he does the image processing of this downloaded image data, he inputs print order data, and he orders a print.

[0061] With the above-mentioned operation gestalt, although the silver salt formula color digital printers 15 and 16 and the ink-jet color printer 17 were used, you may use the color printer of a heat developing imprint method, a color ink jet printer, a color thermal printer, and a color laser printer. Moreover, a monochrome printer is used when performing a monochrome print with a natural thing.

[0062] Picture amendment processing directions data may be added as print order data, in this case, it is finished by the operator, and a simulation picture is observed, and picture amendment processing is performed so that concentration and color balance may become the optimal. In this case, an amendment processing charge is added to a charge rate.

[0063] As a print format of print order data, you may add postcard directions data. In this case, after it made the user choose the content of a synthetic document, and a synthetic pattern from some kinds of patterns and also the user has done picture composition of the document, you may carry out data transfer to a printed-finish contractor. Furthermore, you may mail the postcard printed by the printed-finish contractor side to the destination address by carrying out data transfer also of the destination address list data.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the schematic diagram showing the order delivery-of-goods system of the digital print of this invention.

[Drawing 2] It is the functional block diagram showing the silver salt formula color digital printer used by the order delivery-of-goods system of the digital print of this invention.

[Drawing 3] It is the flow chart which shows the procedure of the order delivery-of-goods system of the digital print of this invention.

[Description of Notations]

10 User (Purchaser)

11 Personal Computer

12 Printed-Finish Contractor (Successful Bidder)

13 Workstation

14 Image File

15 16 Silver salt formula color digital printer

17 Ink Jet Printer

18 Bill Issue Printer

19 Delivery-of-Goods Bag Printing Printer

20 Scanner

21 Digital Still Camera

22 Dial-up Line

23 Network

24 Database

25 Printed-Finish Vendors List

33, 35, 36 Print

37 Bill

38 Delivery-of-Goods Bag

[Translation done.]

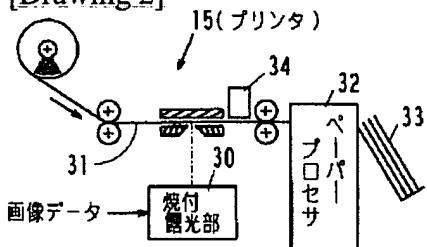
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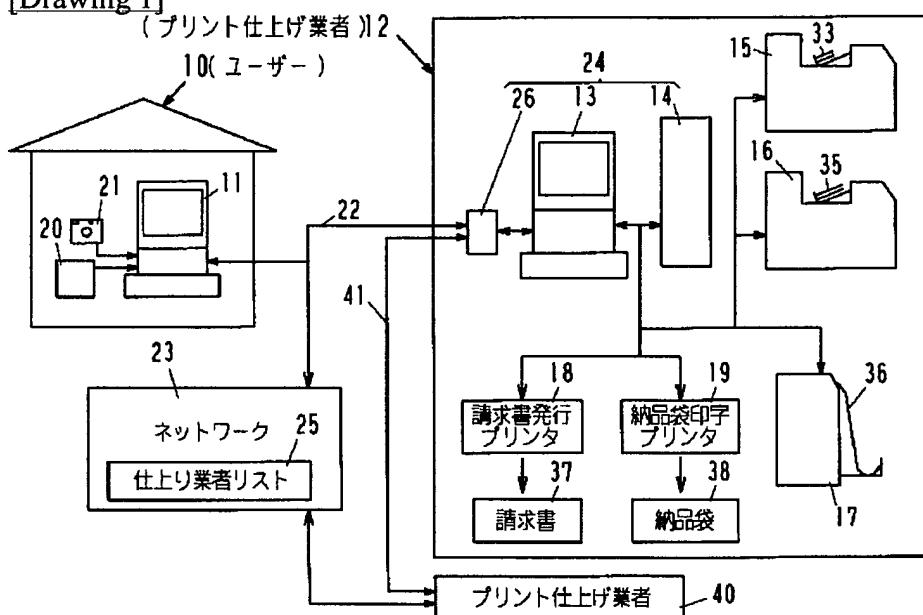
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DRAWINGS

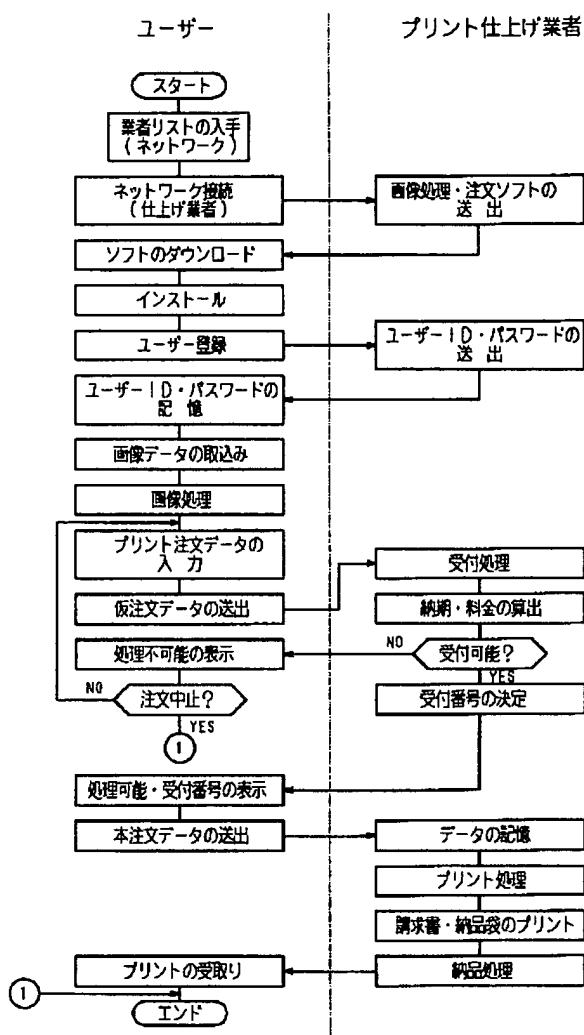
[Drawing 2]



[Drawing 1]



[Drawing 3]



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CORRECTION or AMENDMENT

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 [Procedure amendment 1]
 [Document to be Amended] Specification
 [Item(s) to be Amended] The name of invention
 [Method of Amendment] Change
 [Proposed Amendment]
 [Title of the Invention] The order delivery-of-goods method, system, and receptionist processor of a digital print
 [Procedure amendment 2]
 [Document to be Amended] Specification
 [Item(s) to be Amended] Claim
 [Method of Amendment] Change
 [Proposed Amendment]
 [Claim(s)]
 [Claim 1] The digital image data transmitted from the purchaser and the print order data corresponding to it are received with a receptionist processing means, and it memorizes to storage.

A digital print is created based on the aforementioned digital image data and the aforementioned print order data.

The order delivery-of-goods method of the digital print characterized by delivering the created digital print to a purchaser.

[Claim 2] The aforementioned digital image data are the order delivery-of-goods method of the digital print according to claim 1 characterized by being inputted by a digital camera, a scanner, CG equipment, or the video capture.

[Claim 3] The aforementioned print order data are the order delivery-of-goods method of the digital print according to claim 1 or 2 characterized by including print directions data, print time-for-delivery directions data, the print delivery-of-goods method directions data, and purchaser discernment data.

[Claim 4] The aforementioned print order data are the order delivery-of-goods method of a digital print according to claim 1 or 2 of carrying out specifying the print directions code data the print directions code data based on the combination of print directions data, print time-for-delivery directions data, and the print delivery-of-goods method directions data are beforehand memorized by the aforementioned storage for every purchaser discernment data, and correspond from the aforementioned storage based on the aforementioned purchaser discernment data including purchaser discernment data and print directions code data as the feature.

[Claim 5] The aforementioned receptionist processing means is the order delivery-of-goods method of a digital print according to claim 3 or 4 of carrying out transmitting a processing impossible message to a purchaser side when the temporary order data which consist of the print directions data and the time wishing time for delivery transmitted from a purchaser before transmission of the aforementioned digital image data receive, time for delivery computes based on the aforementioned print directions data and calculation time for delivery exceeds the time for delivery of choice by the aforementioned temporary order data as the feature.

[Claim 6] It is the order delivery-of-goods method of a digital print according to claim 5 that these order data with which the aforementioned calculation time for delivery is transmitted from a purchaser at the time within the time for delivery of choice by the aforementioned temporary order data are memorized to the aforementioned storage, and these aforementioned order data are characterized by the bird clapper from print order data and the aforementioned digital image data.

[Claim 7] While displaying and carrying out the image processing of the digital image data inputted as the digital image entry-of-data means The information processor which inputs print order data, and the means which carries out data transfer of the digital image data and print order data by which the image processing was carried out, The receptionist processing means which receives the digital image data and print order data by which data transfer was carried out, and carries out receptionist processing, It has the storage which memorizes the digital image data and print order data which were received, and the digital printer which creates a print based on the digital image data and print order data which were memorized by this storage.

The aforementioned input means, an information processor, and a data transfer means are prepared in a purchaser side.

A digital printer is the aforementioned receptionist processing means, storage, and the order delivery-of-goods system of the digital print characterized by being prepared in a successful-bidder side.

[Claim 8] The aforementioned digital image data are a digital camera, a scanner, CG equipment, and the order delivery-of-goods system of the digital print according to claim 7 characterized by being inputted by either of the video captures.

[Claim 9] The aforementioned print order data are the order delivery-of-goods system of the digital print according to claim 7 or 8 characterized by including print directions data, print time-for-delivery directions data, the print delivery-of-goods method directions data, and purchaser discernment data.

[Claim 10] The aforementioned print order data are the order delivery-of-goods system of the digital print according to claim 7 or 8 carry out specifying the print directions code data the print directions code data based on the combination of print directions data, print time-for-delivery directions data, and the print delivery-of-goods method directions data are beforehand memorized by the aforementioned

storage for every purchaser discernment data, and correspond from the aforementioned storage based on the aforementioned purchaser discernment data including purchaser discernment data and print directions code data as the feature.

[Claim 11] The aforementioned information processor sends print directions data and the temporary order data which consist of time wishing time for delivery to the aforementioned receptionist processing means. the aforementioned receptionist processing means Based on the aforementioned temporary order data, print time for delivery and a printing charge are computed. When there is data transfer of the print book order data which carry out data transfer of these data to a purchaser, and consist of print order data and digital image data from a purchaser The order delivery-of-goods system of the digital print according to claim 9 or 10 characterized by memorizing print book order data to storage, and sending print directions to a digital printer.

[Claim 12] The order delivery-of-goods system of the digital print according to claim 11 characterized by transmitting receipt number data and performing print book order processing and print processing based on this receipt number on the occasion of the data transfer to the purchaser of the print time for delivery and printing charge based on the aforementioned temporary order data.